



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

W	{ Perigynia not at all or only slightly inflated . . . . .	X.
	{ Perigynia moderately inflated . . . . .	No. 120-7.
	{ Perigynia much inflated . . . . .	No. 139-151.
X	{ Perigynia with merely a short point . . . . .	Y.
	{ Perigynia with a distinct beak . . . . .	No. 116-19.
Y	{ Scales black, purple, or brown . . . . .	No. 46-64.
	{ Scales brownish becoming white . . . . .	No. 71.

## SYNOPSIS OF THE NORTHERN SPECIES OF SALIX.

A	{ Catkins sessile appearing before the leaves . . . . .	B.
	{ Catkins lateral with 4-5 leafy bracts at base . . . . .	I.
	{ Catkins borne on the summit of lateral leafy shoots of the season . . . . .	J.
B	{ Ovaries stalked . . . . .	C.
	{ Ovaries sessile or nearly so . . . . .	H.
C	{ Leaves entire or obscurely wavy toothed . . . . .	D.
	{ Leaves serrate . . . . .	F.
D	{ Leaves petioled . . . . .	E.
	{ Leaves almost sessile; shrub 1°-1½° high . . . . .	<i>S. tristis</i> .
E	{ Leaves taper-pointed; ovary densely wooly . . . . .	<i>S. candida</i> .
	{ Leaves abrupt at apex; ovary silvery hairy . . . . .	<i>S. humilis</i> .
F	{ Leaves smooth above . . . . .	G.
	{ Leaves downy above; stigma sessile . . . . .	<i>S. sericea</i> .
G	{ Leaves finely and evenly serrate . . . . .	<i>S. petiolaris</i> .
	{ Leaves irregularly toothed, entire at base and apex . . . . .	<i>S. discolor</i> .
H	{ Filaments united; leaves oblanceolate . . . . .	<i>S. purpurea</i> .
	{ Filaments separate; leaves linear-lanceolate . . . . .	<i>S. viminalis</i> .
I	{ Ovary smooth, lanceolate . . . . .	<i>S. cordata</i> .
	{ Ovary silky hoary, almost linear . . . . .	<i>S. livida</i> var. <i>occidentalis</i> .
J	{ Ovary silky, ovoid conical . . . . .	<i>S. chlorophylla</i> .
	{ 3° or less high . . . . .	K.
K	{ Trees; 12°-80° high . . . . .	M.
	{ Stem upright . . . . .	<i>S. myrtilloides</i> .
L	{ Prostrate or spreading; alpine species . . . . .	L.
	{ Ovary smooth, sessile . . . . .	<i>S. herbacea</i> .
M	{ Ovary smooth, short-stalked . . . . .	<i>S. Culleri</i> .
	{ Ovary silvery silky . . . . .	<i>S. argyrocarpa</i> .
N	{ Stamens 3-6 or more; ovary stalked, glabrous . . . . .	N.
	{ Stamens 2; ovary nearly sessile, glabrous . . . . .	O.
O	{ Stamens 2; ovary stalked, downy . . . . .	<i>S. longifolia</i> .
	{ Pods taper-pointed; stamens 5 . . . . .	<i>S. lucida</i> .
P	{ Pods short ovate; stamens 3-6 . . . . .	<i>S. nigra</i> .
	{ Leaves smooth, glaucous beneath . . . . .	<i>S. fragilis</i> .
Q	{ Leaves silky beneath . . . . .	<i>S. alba</i> .

LUCIEN M. UNDERWOOD.

§ 65. *Ophioglossum palmatum*, Plummer.—Truly, many and queer are Nature's freaks in shaping leaves, but I think she really surpasses herself in the odd forms she uses in the manufacture of *Ophioglossum palmatum*. Of about thirty specimens of this rare plant, which I received from the Indian River country last summer,

scarcely any two had any particular resemblance to each other. If a child had taken scissors and cut out the leaves, snipping out notches here, and leaving prolonged points there, while abruptly snipping them off in still other places, no queerer shapes could be found. They are grotesque and misshapen; not one can be called "pretty" (though the texture of the frond is daintily thin), and the fruiting-spikes always vaguely remind me of rattlesnakes and their rattles. Fronds simple and ovate, lanceolate or broadly wedge-shaped; or two-lobed, one lobe twice as long as the other, and both knocked over on one side at right angles to the stem; or three, four or five-lobed with short upper lobes and a much-pulled-out lateral lobe; obtuse, acute, scalloped, square or emarginate tips; the variety is endless. The fruiting-spikes vary in number, some of the smallest fronds only an inch or two long, stem and all, and less than an inch wide, bearing three or four; while larger ones, with stem three or four inches long and blade two inches long by same breadth, can scarcely perfect one good spike.

ST. AUGUSTINE, FLA.

MARY C. REYNOLDS.

§ 66. **A New Sphaeria on Grapes.**—In the early part of the present month (May, 1880) my friend, Dr. E. C. Bidwell, of Vineland, N. J., wrote me that he had found the ascigerous form of the fungus to which *Phoma uvicola* belongs. The grapes on which the fungus in question was found had been struck with the rot last season, and were still hanging dry and shrivelled on the vines and well covered with the *Phoma*. Dr. B., who has for some years past been investigating the grape-vine fungi, placed for the purpose of experiment some of these shrivelled grapes in water where they were allowed to soak for three or four days. At the expiration of this time many of the perithecia (which before contained only spores of the *Phoma*) were now filled with well-developed asci, in which the sporidia were not yet fully matured. Having read the account of Dr. B.'s discovery, I at once examined the grape-vines in my own vicinity, and found lying on the ground under the grape trellis a few shrivelled grapes, which afforded some ascigerous perithecia, together with an abundance of *Phoma*. These grapes, perhaps from the fact of their having lain on the ground where they had imbibed a greater amount of moisture, were in a more advanced stage of development than those hanging on the vines.

The fungus in question is a *Sphaeria* of the section *Subtectae*, Fr., and in honor of its discoverer is here proposed as

**Sphaeria Bidwellii**, *n. sp.*, briefly characterized as follows: S. peritheciis minutis globosis epidermidi tectis demum suberumpentibus, apice poro pertusis; ascis clavate-cylindraceutis obtusis .0027' x .0005, sporidiis, octo irregulariter ellipticas vel oblongas (continuas?) .0005'–.0007' x .00015'–.0002' foventibus; paraphysibus nullis.

The specimens thus far examined appear not to be fully mature, the sporidia being filled with granular matter and a few oil globules, so that their ultimate shape cannot now be perfectly defined. There appears to be quite a variation in their form, from regularly elliptical